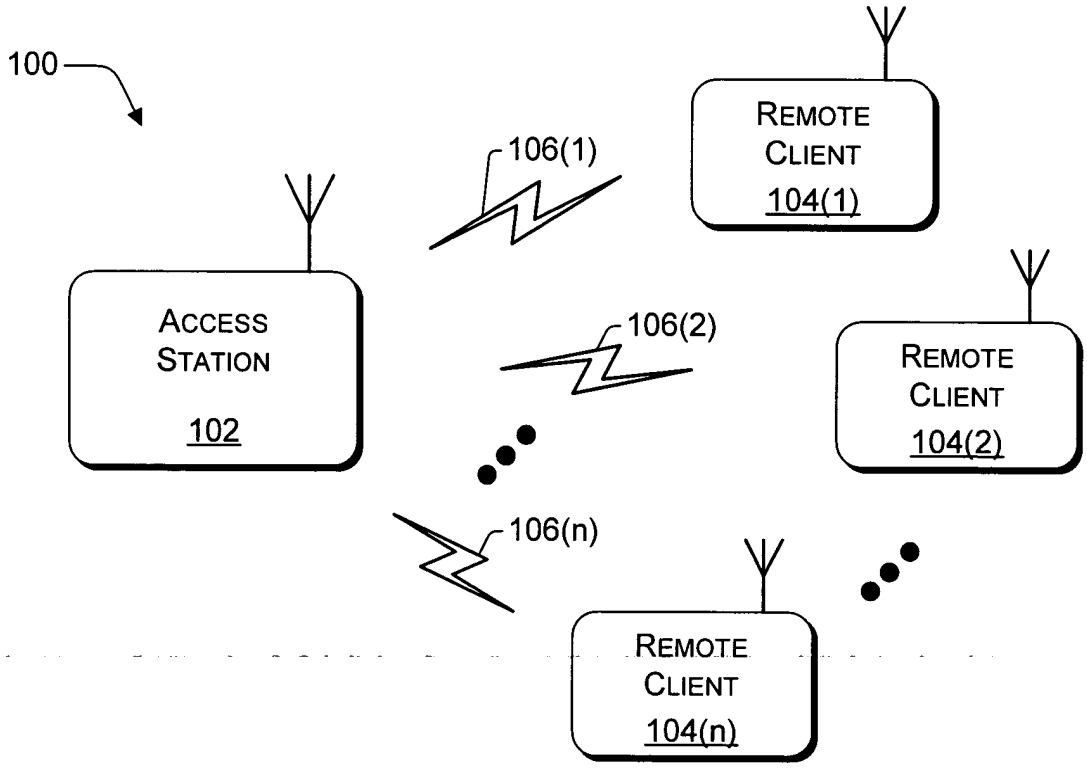
100
ACCESS STATION
102
106(1)
REMOTE CLIENT
104(1)
106(2)
REMOTE CLIENT
104(2)
106(n)
REMOTE CLIENT
104(n)

FIG. 1

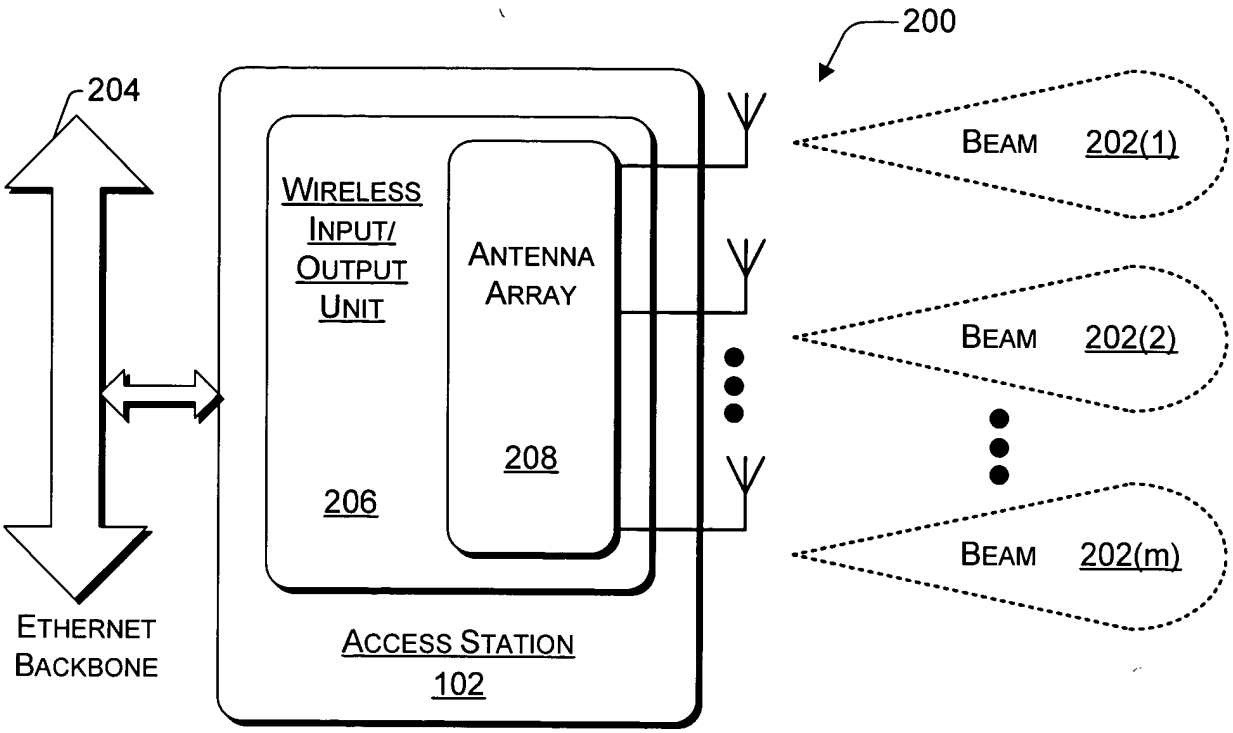
200
204
WIRELESS INPUT/ OUTPUT UNIT
ANTENNA ARRAY
208
206
BEAM 202(1)
BEAM 202(2)
BEAM 202(m)
ETHERNET BACKBONE
ACCESS STATION 102

FIG. 2

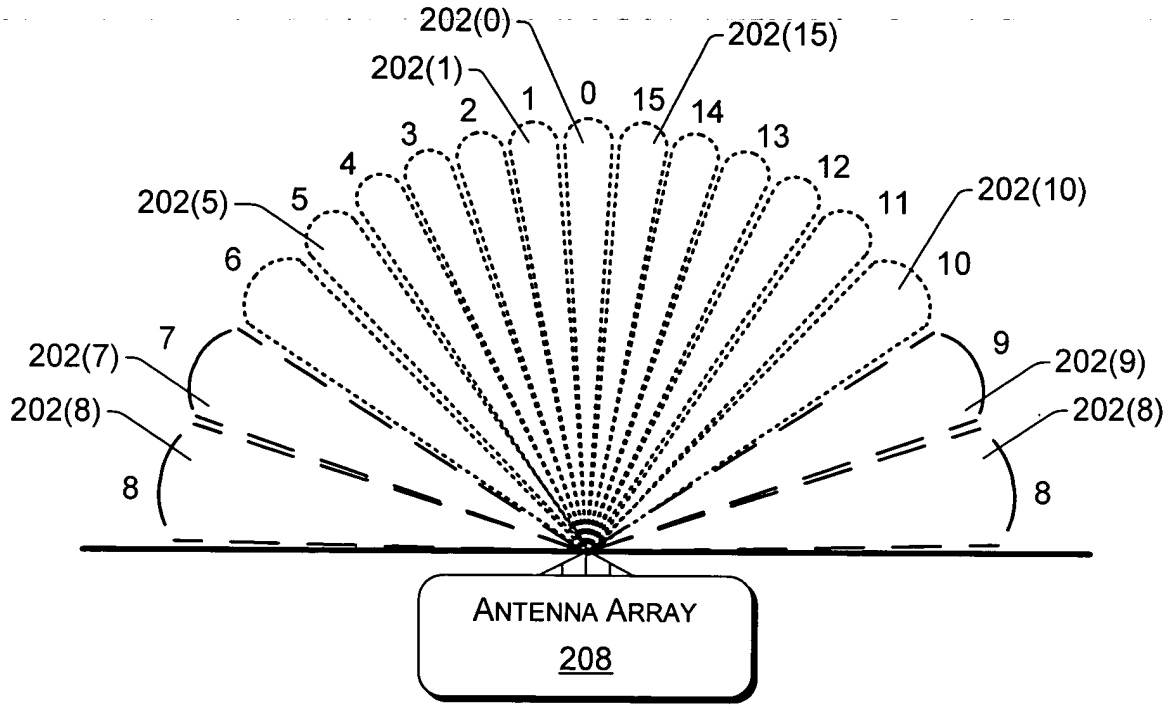
202(0)
202(1)
202(15)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
202(5)
202(10)
202(7)
202(8)
202(9)
202(8)
ANTENNA ARRAY 208

FIG. 3

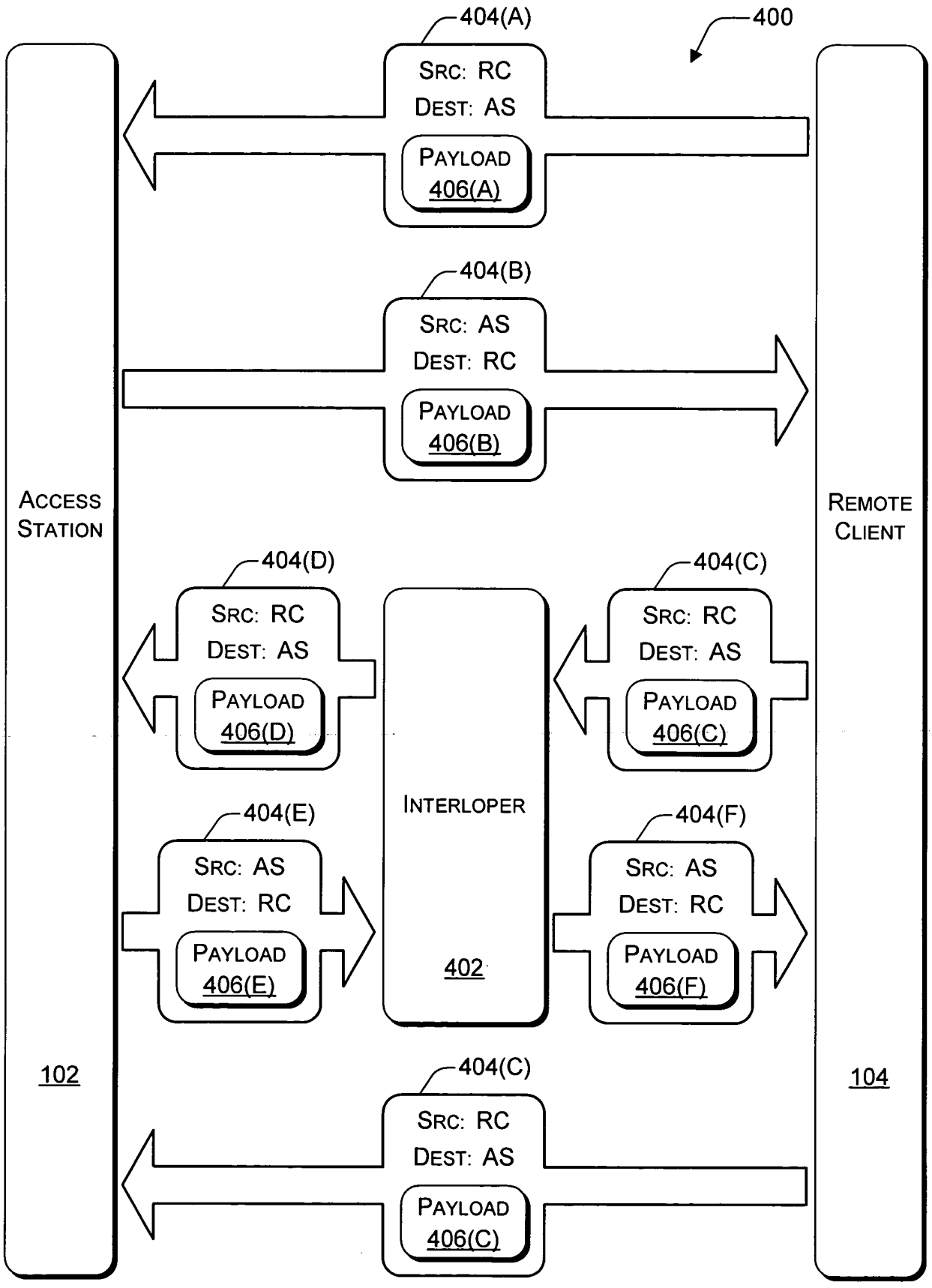
404(A)
400
SRC: RC
DEST: AS
PAYLOAD
406(A)
404(B)
SRC: AS
DEST: RC
PAYLOAD
406(B)
ACCESS STATION
REMOTE CLIENT
404(D)
SRC: RC
DEST: AS
PAYLOAD
406(D)
404(C)
SRC: RC
DEST: AS
PAYLOAD
406(C)
INTERLOPER
404(E)
SRC: AS
DEST: RC
PAYLOAD
406(E)
404(F)
SRC: AS
DEST: RC
PAYLOAD
406(F)
402
102
104
404(C)
SRC: RC
DEST: AS
PAYLOAD
406(C)

FIG. 4

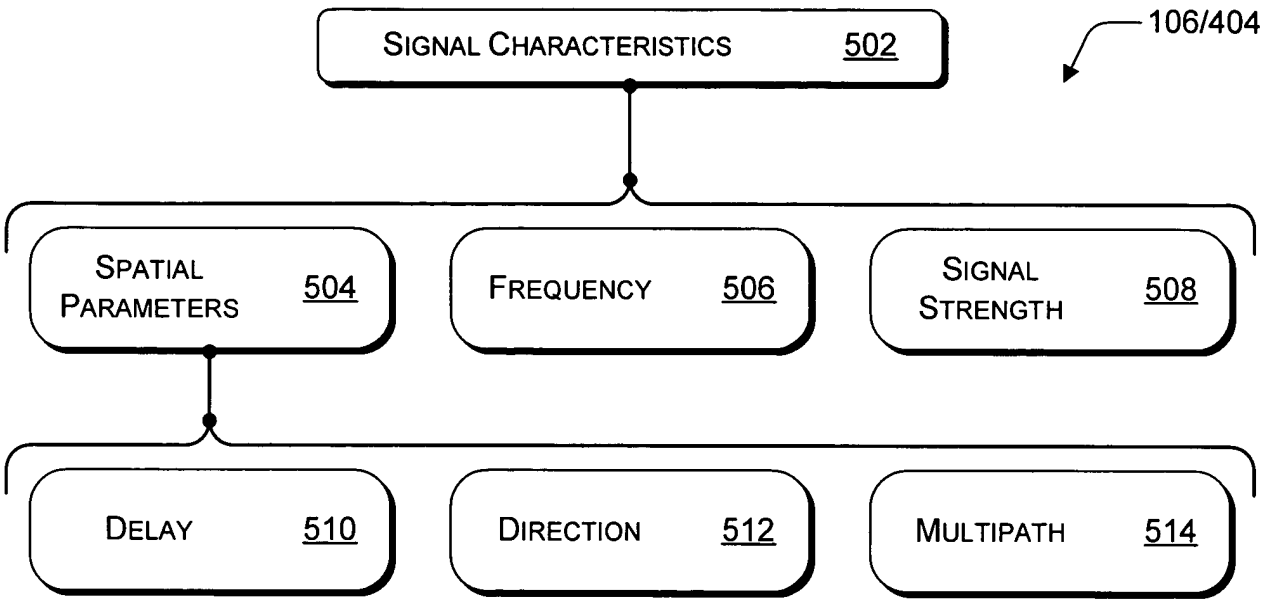
SIGNAL CHARACTERISTICS 502
106/404
SPATIAL PARAMETERS 504
FREQUENCY 506
SIGNAL STRENGTH 508
DELAY 510
DIRECTION 512
MULTIPATH 514

FIG. 5

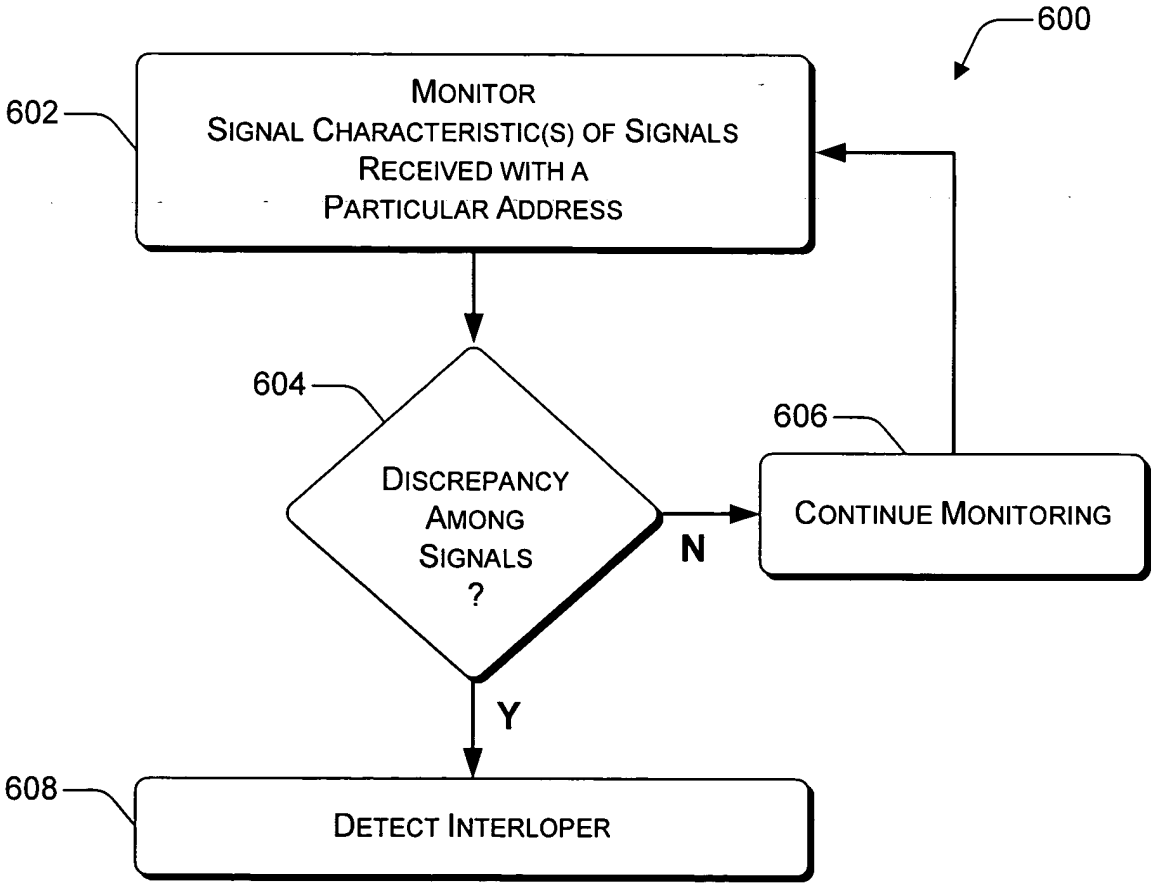
600
602
MONITOR SIGNAL CHARACTERISTIC(S) OF SIGNALS RECEIVED WITH A PARTICULAR ADDRESS
604
DISCREPANCY AMONG SIGNALS ?
N
606
CONTINUE MONITORING
Y
608
DETECT INTERLOPER

FIG. 6

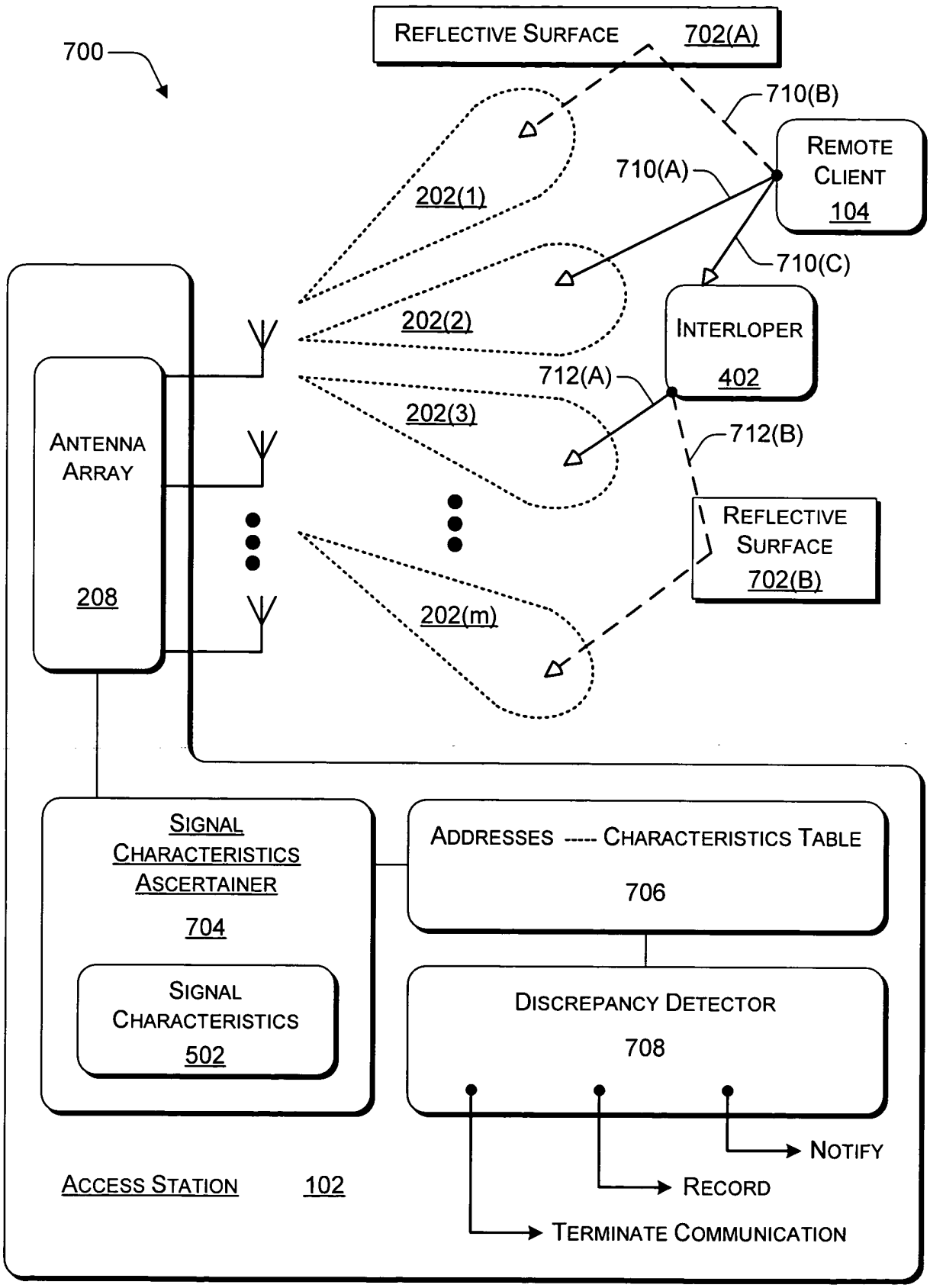
700
REFLECTIVE SURFACE 702(A)
710(B)
REMOTE CLIENT 104
710(A)
202(1)
710(C)
202(2)
INTERLOPER 402
712(A)
202(3)
712(B)
ANTENNA ARRAY 208
REFLECTIVE SURFACE 702(B)
202(m)
SIGNAL CHARACTERISTICS ASCERTAINER 704
SIGNAL CHARACTERISTICS 502
ADDRESSES ----- CHARACTERISTICS TABLE 706
DISCREPANCY DETECTOR 708
NOTIFY
RECORD
TERMINATE COMMUNICATION
ACCESS STATION 102

FIG. 7

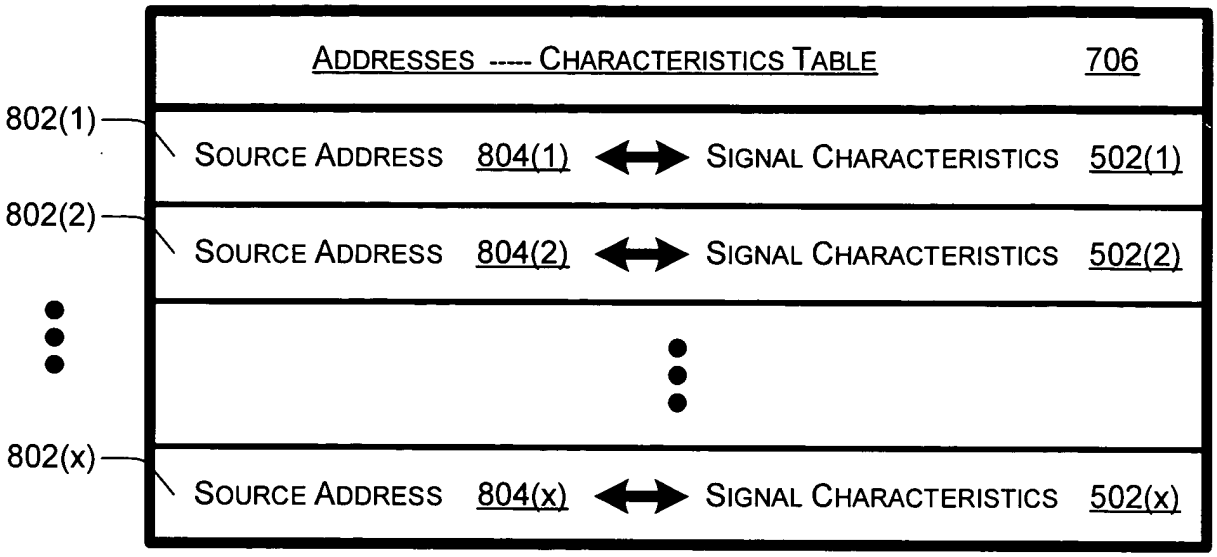
ADDRESSES ----- CHARACTERISTICS TABLE 706
802(1)
SOURCE ADDRESS 804(1) SIGNAL CHARACTERISTICS 502(1)
802(2)
SOURCE ADDRESS 804(2) SIGNAL CHARACTERISTICS 502(2)
802(x)
SOURCE ADDRESS 804(x) SIGNAL CHARACTERISTICS 502(x)

FIG. 8

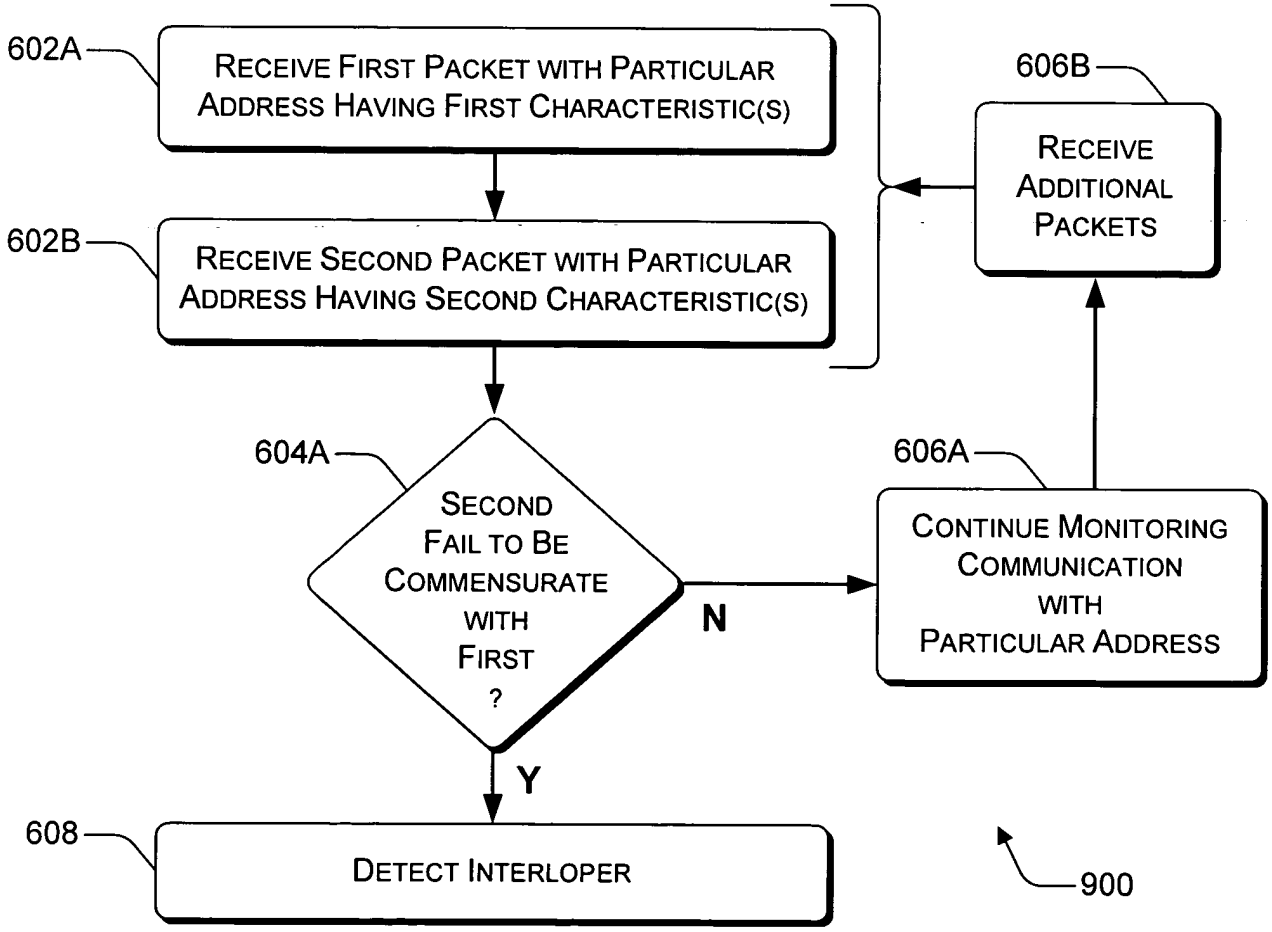
602A
RECEIVE FIRST PACKET WITH PARTICULAR ADDRESS HAVING FIRST CHARACTERISTIC(S)
602B
RECEIVE SECOND PACKET WITH PARTICULAR ADDRESS HAVING SECOND CHARACTERISTIC(S)
606B
RECEIVE ADDITIONAL PACKETS
604A
SECOND FAIL TO BE COMMENSURATE WITH FIRST ?
N
606A
CONTINUE MONITORING COMMUNICATION WITH PARTICULAR ADDRESS
Y
608
DETECT INTERLOPER
900

FIG. 9

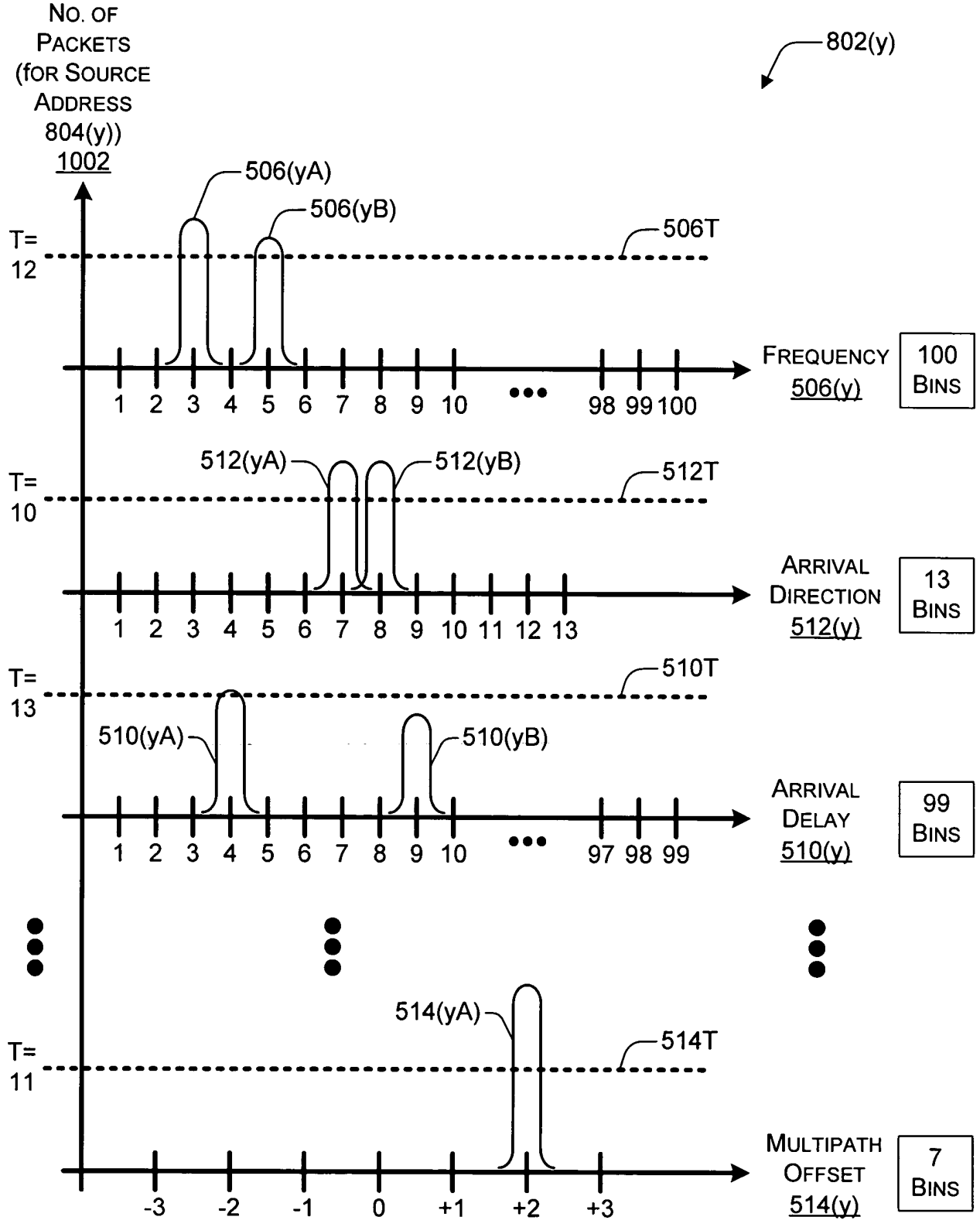
NO. OF PACKETS (FOR SOURCE ADDRESS 804(y))
1002
802(y)
506(yA)
506(yB)
506T
T= 12
1 2 3 4 5 6 7 8 9 10 ••• 98 99 100
FREQUENCY 506(y)
100 BINS
512(yA)
512(yB)
512T
T= 10
1 2 3 4 5 6 7 8 9 10 11 12 13
ARRIVAL DIRECTION 512(y)
13 BINS
510T
T= 13
510(yA)
510(yB)
1 2 3 4 5 6 7 8 9 10 ••• 97 98 99
ARRIVAL DELAY 510(y)
99 BINS
514(yA)
514T
T= 11
-3 -2 -1 0 +1 +2 +3
MULTIPATH OFFSET 514(y)
7 BINS

FIG. 10

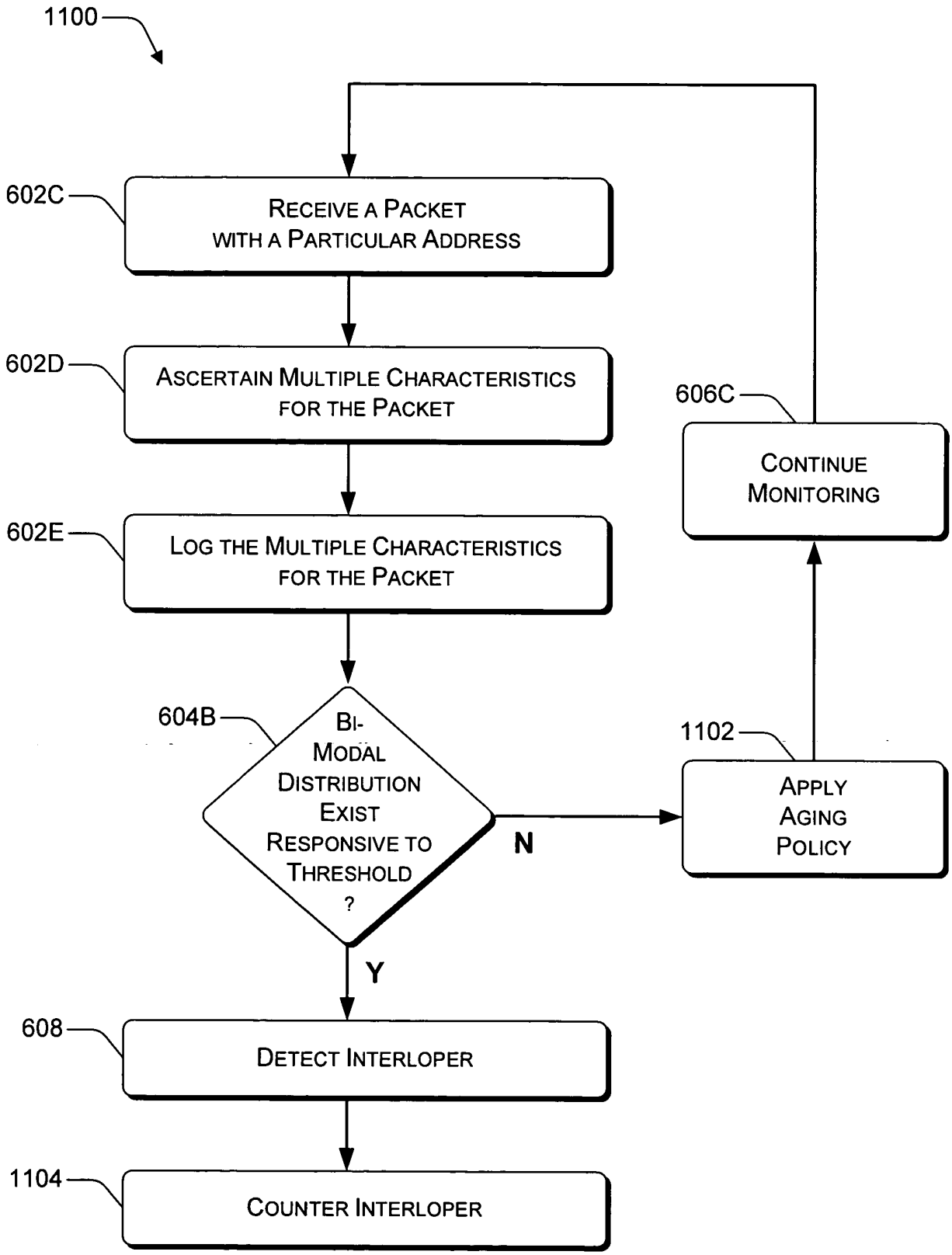
1100
602C
RECEIVE A PACKET WITH A PARTICULAR ADDRESS
602D
ASCERTAIN MULTIPLE CHARACTERISTICS FOR THE PACKET
602E
LOG THE MULTIPLE CHARACTERISTICS FOR THE PACKET
604B
BI-MODAL DISTRIBUTION EXIST RESPONSIVE TO THRESHOLD ?
N
Y
606C
CONTINUE MONITORING
1102
APPLY AGING POLICY
608
DETECT INTERLOPER
1104
COUNTER INTERLOPER

FIG. 11